

## APPENDIX

Notes for FOMC Meeting  
December 17, 1985

Sam Y. Cross

Since your last meeting the dollar has declined about 2-3 percent against most major currencies. This means that since the week before the September G-5 meeting the mark has appreciated by 14 percent against the dollar and the yen by over 19 percent against the dollar (2.90 to 2.5240 DM; Y242 to Y202.5). For the first time since G-5, there has been more diversity of exchange rate movements, with the dollar actually rising against pound sterling and the Canadian dollar while declining against most other currencies.

For the most part, the dollar has fallen without much help from central bank intervention. Our only intervention during this period occurred on one day shortly after the last FOMC meeting (Thursday, Nov. 7), when commercial demand and large short covering put rather sudden upward pressure on dollar exchange rates. We responded by selling \$77 million against yen and \$25 million against marks, operating both directly and through agents. These operations, which were split equally between the Federal Reserve and the Treasury, were followed up by other central banks and the pressures subsided.

After these operations, the dollar declined through most of November. The incoming U.S. business statistics of that month were viewed as evidence of lackluster economic performance, raising market expectations of lower dollar interest rates. At the same time, a further rise in Japanese interest rates narrowed the extent to which interest rate differentials favor the dollar. This prompted the dollar's fall particularly against the Japanese yen during much of November. At one point just before Thanksgiving, it dropped temporarily to a five-year low of less than 200 yen against the dollar. Then a change in tone of Japanese official statements, and some easing of yen interest rates, led observers to conclude that the authorities were satisfied with the size of the yen's appreciation and the dollar rate stabilized at just over 200Y per dollar.

Late in November attention turned to the German mark. Against a background of growing optimism about the German economy, speculation took hold that the mark would tend to catch up with the yen's earlier rise. This prompted the market to undertake heavy purchases of marks against dollars as well as against yen and European currencies.

The rise in the mark tended to reveal the vulnerabilities in existing EMS exchange rate relationships. Despite sporadic signs of improvement in the trade and inflation performance of France, Italy and Belgium, there is a view that cumulative inflation differentials will necessitate an eventual EMS realignment, with only timing a matter of debate. The planned entry of Spain and Portugal into the EC in January and prospective French national elections in March both served to focus attention on the possibility of a realignment early next year. Many

market participants expect that the present French Government will resist strongly any realignment before the elections, and that a new conservative government, if elected, would wish to press promptly for a cut in the rate and blame the need for devaluation on its predecessors' policies. This expectation had led to pressure against the French franc and also against the currencies of Italy and Belgium, currencies that would also be expected to be devalued in event of an EMS realignment. All these countries have intervened and sold large amounts of marks.

The Germans, for their part, have been in on both sides of the market, both buying and selling dollars. Early in December, when the dollar fell temporarily below DM2.50, viewed as a key level by many traders, the Bundesbank stepped in to buy \$170 million in the spot market in two days. It used the proceeds to cover settlement of some forward dollar sales which it had made during the heavy intervention operations undertaken around the end of February. Then, last week, when the dollar firmed suddenly to approach DM2.56, the Bundesbank again entered the market, this time selling dollars in a small but highly visible operation. These Bundesbank operations, buying dollars at DM2.50 and selling DM2.56 have reinforced the view in the market that the central banks are reasonably satisfied with the dollar trading narrowly around current levels. With respect to the yen, there has been some further easing of interest rates today, as the seasonal pressures on Japanese interest rates are ending, and the Bank of Japan has not offset that easing. But this seems to have had little or no effect on the exchange rate, which continues to trade around 202-203 yen per dollar.

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NOTES FOR FOMC MEETING  
DECEMBER 16-17, 1985

Domestic Desk operations since the last meeting have sought to maintain approximately unchanged conditions of reserve availability. Operations were complicated by Treasury debt management actions which were alternately constrained for want of debt limit room and then dictated by urgent needs to raise money and avoid default. An even greater reserve management problem stemmed from a computer breakdown at the Bank of New York, a major Government securities clearing bank, causing that bank to borrow an extraordinary \$22.6 billion for one day at the discount window. Despite these complications, reserve objectives came close to achievement--closer than usual, in fact, in terms of average nonborrowed reserves for two-week periods.

While the broader monetary aggregates tracked fairly close to the Committee's desired pace for September-December, and held within their annual objectives as well, M1 followed its small decline in October with a burst of strength in November and early December. This brought the measure above the anticipated fourth-quarter rate and still further above the desired second-to-fourth quarter growth range. Even so, with the economy showing no great zip and the dollar often tending to the soft side, no change was made in the \$450 million level of borrowing used in construction of nonborrowed reserve objectives.

In the two full reserve periods since the last meeting, nonborrowed reserves turned out about equal to, or slightly above the objective--provided one counts the \$22.6 billion overnight BONY borrowing as nonborrowed reserves, which is what we did for path following purposes. Meantime, both borrowings and excess reserves turned out above path--with borrowings around \$650 million in the first period and \$800 million in the second (ex-BONY). So far in the current period, though, borrowing has averaged a low \$180 million.

The federal funds rate ranged fairly widely over the period, partly because of temporary maldistributions in the aftermath of the BONY borrowing. For the two full reserve periods, the rate averaged 8.04 and 8.10 percent, while thus far in the current period the average is just under 8.

Viewing the period as a whole, funds have thus averaged a shade firmer than the 8 percent or slightly under the range that was anticipated in association with \$450 million of borrowing. The slightly greater firmness may reflect some of the stress and strain produced by debt ceiling problems--with several big Treasury payment days including some requiring same day auction and settlement--and the aforementioned BONY problem that skewed the distribution of reserves both geographically and over time. Another factor, possibly, has been the decline in seasonal borrowing from \$100-150 million a month or two ago to more like \$50 million more recently; as seasonal needs ran lower a little more of the borrowing gap had to be filled by adjustment borrowing.

While shifting Treasury balances and the outsize BONY borrowing affected the timing of reserve needs, strong seasonal needs did finally show through, chiefly because of increased currency in circulation. To meet the needs, the Desk bought nearly \$6.7 billion of Treasury securities on an outright basis during the intermeeting period, requiring--as you know--a temporary increase in leeway. The purchases included about \$3.3 billion of bills bought in the market, about \$1.8 billion of bills bought from foreign accounts and \$1.55 billion of coupon issues purchased in the market. Repurchase agreements were arranged about a dozen times, about evenly divided between System and customer-related operations. Matched sales were undertaken three times to absorb reserves temporarily in over-supply, including one occasion a few days after the BONY problem.

With year-end approaching, it may be of interest to note that the System's net outright securities purchases so far this year came to a record \$18.4 billion. This brings the portfolio of Treasury and agency issues close to \$190 billion. The previous record increase was

\$16.4 billion in 1983, while in other recent years the rise was \$7 or \$8 billion. This year's increase included about \$14 billion in bills and \$4 billion in coupon issues. Chiefly, the large outright increase was needed to offset the reserves absorbed through an \$11 billion increase in currency in circulation and a \$7 billion rise in requirements as money expanded and some required reserve ratios were phased up.

Interest rates fell appreciably in the intermeeting period, especially for intermediate- and longer-term issues. A major factor seemed to be the growing confidence that Congress would pass some sort of Gramm-Rudman deficit restraint measure, as they finally did. The economy was regarded as advancing only modestly with inflation not a serious threat, particularly given the outlook for oil prices. Some analysts drew comfort from official statements and actions to support their view that monetary policy might be tending to the more accommodative side and certainly was not firming despite strong M1 growth. Anticipations of a discount rate cut waxed and waned, rebuilding to a fairly widespread expectation by the close of the period. The decline in the dollar posed a cautionary consideration at times as market observers noted official concerns on this score, but as the dollar steadied this factor became less potent.

Against this buoyant background, the markets absorbed a huge amount of debt, including a backlog of Treasury issues piled up because of debt limit constraints until mid-November. Yields on Treasury issues due in two years or longer were mostly down by 65-75 basis points, while the Treasury raised about \$22 billion in the coupon area. Yields on the longest Treasury bonds fell through 10 percent for the first time since 1980, approaching 9-1/2 percent in recent days. There was also heavy corporate and tax-exempt issuance, generally at declining yields. Spreads on Farm Credit issues over Treasury yields narrowed as the Congress moved toward approving legislation that would provide for a possible Treasury back-up behind that agency's paper. On the other hand, Texaco issues rose sharply in yield following an adverse court judgment against that company, and

they have been shut off from their usual funding in the commercial paper market.

In the short-term area, yields fell more modestly, perhaps anchored by a federal funds rate that fluctuated mainly around 8 percent, though a bit below in recent days. Bill rates held quite steady through most of the period, around 7-1/4 percent for three-month issues, but came down to about 7 percent in the last week or so as a stronger conviction pervaded the market that policy was taking, or was about to take, an easier turn. Both three- and six-month bills were sold today at average rates of about 7 percent, compared with 7.21 and 7.30 just before the last meeting. The Treasury meantime raised a net of about \$10 billion in the bill market. Rates on CDs and commercial paper fell less than on bills, roughly by 10 basis points.

A widespread, though not universal, market expectation now is that policy is tending to the easier side, with a discount rate cut likely in a matter of weeks. This leaves participants content with a funds rate a little under 8 percent for the time being but mainly expecting a reduction near term. These expectations have also been a factor in the big stock market rally of recent weeks.

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12/16/85

### FOMC Briefing on Monetary Aggregates

This year's slowdown in nominal GNP growth, shown in the top left box of your first chart, was accompanied by a marked acceleration of M1 expansion, in the second box. The associated drop in the velocity of M1, shown in the adjoining graph, was a little faster this year than its rate of decline from late 1981 to early 1983. This year's drop moved V1 well below its 1981 peak. V1's decline on balance over this period stands in sharp contrast to its previous 3 percent annual trend rate of growth since the early fifties. A rough correspondence of V1 with short-term interest rates, represented in the top graph by a two-quarter moving average of the 3-month Treasury bill rate, is evident. But the relationship with the bill rate has not been very stable.

The lower panels portray less steep declines this year in the velocities of M2 and M1-A than for V1. During the last five years, M2's velocity has fallen on balance, while M1-A's velocity generally has continued to rise.

These measures of contemporaneous velocities do not capture the ability of an aggregate to foreshadow future movements in GNP. Any leading relationship from money to GNP would be better reflected by calculating its velocity with money measured for an earlier period than for GNP. In chart 2 velocities are calculated as ratios of current GNP to money lagged two quarters. As shown in the second panel, using this procedure gives a smoother pattern of M1 velocity than the standard V1 measure through 1985. This suggests the presence of some leading relationship over two quarter periods going from M1



to GNP. Even so, a marked departure from the postwar uptrend in M1 velocity remains. Also, the leading relationship is somewhat erratic and recently seems to be deteriorating further. Given the M1 growth that has occurred, another decline in this lagged measure of V1 is in store for the first half of 1986 unless nominal GNP grows at a 12 percent annual rate. Some decline in the velocities of M2 and M1-A also seems in train over the first half of next year, when nominal GNP is likely to grow more slowly than the growth rates of these aggregates over the second half of this year.

Recent growth rates of all three aggregates, but especially M1, also have been considerably more rapid than suggested by postwar relationships as embodied in econometric models of money demand. Model underpredictions of M1 growth, shown in the top panel of chart 3, are of unprecedented size both for 1985 as a whole, in the left panel, and for the third quarter, in the right panel. The model errors for M2 and M1-A growth over the same periods, though appreciable, were smaller than for M1.

The outsized growth of M1 this year in part seems to have reflected the relative behavior of offering rates on various accounts that have been newly authorized or deregulated during the 1980s. The rate on regular NOWs has remained fixed at its 5-1/4 percent ceiling, while--as shown in the top panel of chart 4--offering rates on Super NOWs have adjusted only sluggishly to changes in market yields. MMDA rates, in the middle panel, have adjusted somewhat more flexibly. Small time deposit rates, in the lowest panel, have moved rather promptly in response to variations in Treasury bill rates.

Thus, the general decline in market rates since the late summer of 1984 has been associated with a narrowing in the the spread between offering rates on small time deposits and Super NOWs, as shown on the top panel of

your next chart. As the opportunity cost of holding NOW accounts has diminished, inflows to those accounts have strengthened considerably, as indicated by the solid line in the middle panel. Some of these inflows evidently were diverted from small time deposits, which, as the dashed line shows, recorded sizable outflows after mid-year. The rough inverse relationship between flows of small time deposits and OCDs suggests an influx of savings-type balances into NOW accounts this year. The increased relative returns on NOWs seem to have lessened the public's desire to separate transactions from savings balances by more than the models suggest.

Other liquid assets, including MMDAs, shown in the bottom panel, and savings and demand deposits, not shown, also accelerated markedly this year. Lower interest rates on market instruments and small time deposits likely played an important role. But some of the reallocation of funds to all these more liquid accounts may have been motivated in part by the public's concerns about financial fragility and desires to have readily accessible insured deposits.

In assessing the future behavior of the aggregates, the effects of the final steps of deposit deregulation need to be considered. The present \$1,000 minimum balance requirement on Super NOWs and MMDAs will be eliminated on January 1, 1986, and the remaining interest rate ceilings will be removed on April 1. We expect these steps to induce little initial shifting of funds between the various monetary aggregates. Present indications are that depository institutions generally do not plan to offer any more attractive rates on small-sized NOW or savings accounts or to promote such accounts heavily.

These final steps of deposit deregulation, though, may well have effects on the characteristics of the monetary aggregates over time. The interest responsiveness of M2 is likely to become still smaller, as offering rates on savings accounts begin to exhibit some responsiveness to variations in market rates, though just how flexible they will be is still uncertain. In addition, the bulk of deposit flows induced by changing relative returns will tend to be contained within M2.

The interest responsiveness of M1, even with the deregulation of regular NOWs, may well not be reduced by much--at least over periods of up to a year. Given the sluggish adjustment likely for NOW rates and the currently low spreads between market interest rates and these offering rates, M1 could show a fairly large response if short-term interest rates were to decline. Considering the present wide range of uncertainty about what future interest rate levels will be consistent with adequate economic performance, a large M1 sensitivity to interest rates would make it harder to set a narrow target range for M1.

Final deregulation also may influence the ongoing trend rate of growth in M1 velocity, considered apart from effects of interest rate movements. The trend of M1 velocity may have diminished some already, since lower market interest rates and deregulation of transactions deposit rates probably have reduced incentives for innovations aimed at economizing on M1 balances. But the experience of recent years affords little real guidance in this regard, because disentangling the separate impact of a lower trend of innovations from other influences is virtually impossible. In addition, the future evolution of deposit pricing and account offerings is difficult to foretell.

The unusual strength in demand deposits during 1985, which was concentrated in business accounts, is a sign that the behavior of M1-A, as well as M1, is hard to predict. The interest sensitivity of M1-A may not be much affected by the full deregulation of accounts outside it. The future trend rate of M1-A velocity could exceed that of M1 for some time, but by how much will depend in part on the extent of the ongoing conversion of demand deposits to other accounts.

Experience in coming years may help diminish these uncertainties involving the monetary aggregates. M2, for example, could become a more useful guide than M1 as the broader aggregate develops less sensitivity to interest rate changes, and if its relationships to other economic measures remain at least no more unstable than relations involving M1. On the other hand, M1 should remain more dominated than M2 by transactions motives, so that M1's "transactions" component would probably be more closely connected than M2 with movements in GNP. The usefulness of M1 could tend to be enhanced, even assuming its interest sensitivity proves to be somewhat larger than M2's, if experience in coming years also makes the enlarged "savings" component of M1 more predictable than is the case today.